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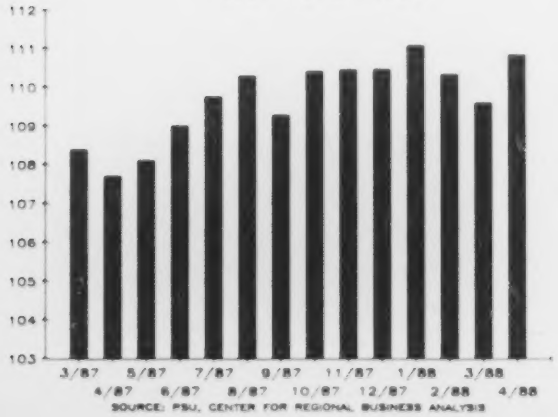
LEADING INDEX SUGGESTS LITTLE LIKELIHOOD OF MAJOR SLOWDOWN

While a few pockets of weakness remain, **most indicators suggest that Pennsylvania's economy continued to expand in April.** Furthermore, **recent behavior in the State's leading economic index combined with additional evidence of a stronger-than-expected U.S. economy gives rise to expectations of further encouraging results in the near future.** The leading index, which is made up of the average factory workweek, initial claims for unemployment insurance, and the value of residential construction contract awards, reversed two consecutive monthly declines with a solid 1.1 percent gain in April. This marks the ninth time in the last 12 months that the index has advanced or held steady. Although the index is not designed in such a way as to quantify expectations of future growth, such a trend does suggest that there is little likelihood of a significant retrenchment in economic activity over the short-term in the Commonwealth.

Last month's Survey highlighted the surprising strength being shown on the part of the nation's consumers. **Another important factor contributing to the U.S. economy's recent spurt of "good" numbers has been a solid showing on the export-front which translates into good news for the nation's, and Pennsylvania's, manufacturers.** Indeed, at one time or another over the course of the past several months, the factory sector's healthier performance has shown up in such indicators as industrial production, factory orders, capacity utilization, and job levels, to name a few. With respect to Pennsylvania, April's average workweek of 41.2 hours after seasonal adjustment equals a record-high. While a slight decline was recorded in April, electricity sales to industry have remained consistently above year-ago readings for the past several months. April job totals in the State's manufacturing establishments were up 10,000 from year-earlier readings. A solid job-gain shows up even when the primary metals component, which was heavily impacted by the USX strike during the first several months of 1987, is discounted.

PENNSYLVANIA COMPOSITE INDEX
OF LEADING INDICATORS
(Jan 1972=100)



SOURCE: PSU, CENTER FOR REGIONAL BUSINESS ANALYSIS

The recent improvement in manufacturing's fortunes is being felt in most states. Specifically, March manufacturing job totals were higher than year-ago readings in all but 11 states. If the focus is narrowed to what many refer to as the stereotypical "rust-belt" states of the northeast as identified in the accompanying table, Pennsylvania's performance stands up fairly well. Only Indiana turned in a stronger performance, at least in March. **Still, the year-to-date factory job gain of 1.6 percent registered so far this year in Pennsylvania falls short of the 2.3 percent national advance.**

There was a surprising drop in the number of jobs in Pennsylvania's nonmanufacturing establishments in April, only the second such decline since the begining of 1986. However, the decline, at a seasonally adjusted 2,000, was insiginificant and may be attributable to difficulties in adjusting for seasonality. This is especially true for the retail trade industry where job totals are fairly volatile in March and April depending upon when Easter falls. Before adjustment, job levels rose by 53,000 in April. Clearly, **there is little cause for worry when it comes to Pennsylvania's nonmanufacturing industries, at least with respect to job generation.**

Despite the overall drop in nonmanufacturing jobs for the month, service establishments continued to add workers. As shown in the accompanying table, job gains in these establishments have been fairly broad-based across industry lines so far in 1988. The largest industries, especially in the health and business services fields, have accounted for the bulk of all new jobs. Because of its relatively large size, health services has accounted for more than one-quarter of all new jobs generated between the first four months of 1987 and 1988. However, this industry accounts for about one-third of all service jobs based on 1987 calculations. Hence, this industry

March 1987-March 1988 manufacturing job growth in eight northeastern industrialized states

	Absolute change (thous.)	Percentage change
Illinois	11.8	1.3
Indiana	18.5	3.1
Massachusetts	-16.1	-2.7
Michigan	-57.2	-5.8
New Jersey	-13.0	-1.9
New York	- 5.7	-0.5
Ohio	2.0	0.2
Pennsylvania	14.1	1.4

Source: U.S. Dept. of Labor, Bur. of Labor Statistics

has not realized its "fair share" of job gains so far this year. On the other hand, business services, which accounts for about 17 percent of all service jobs in the Commonwealth, has contributed a larger-than-expected 29 percent of all new jobs this year. Another big gainer so far this year after taking into account its relative size is the "hotels and other lodging" industry. While it accounts for just over 4 percent of all service jobs, its share of new jobs has been more than twice that so far this year.

Despite the overall drop in nonagricultural jobs resulting from the weak showing in both the manufacturing and nonmanufacturing sectors, **some improvement was shown in terms of resident employment during April.** Again, this illustrates that, depending on the data used in the analysis, one may arrive at any one of several different conclusions regarding the health of Pennsylvania's economy. Specifically,

Economic Activity in Pennsylvania	UNADJUSTED DATA			SEASONALLY ADJUSTED DATA			SEASONALLY ADJUSTED INDEXES (1977 = 100)		
	1988		1987	1988		1987	1988		1987
	March	*April*	*April*	*March*	*April*	*April*	*March*	*April*	*April*
Pennsylvania Industries									
All nonagricultural industries									
No. of wage and salary jobs (thous.)[1]	4,950*	5,006	4,893	5,005	5,002	4,890	109.6	109.6	107.1
Nonmanufacturing									
No. of wage and salary jobs (thous.)	3,903*	3,956	3,854	3,955	3,953	3,852	122.7*	122.6	119.5
Mining	30	30	31	30	30	31	63.3	61.7	63.9
Contract construction	208*	225	210	231*	233	218	125.7*	126.6	118.5
Transportation	141	141	142	142	139	141	88.2	86.6	87.7
Public Utilities	105	104	103	106	105	104	104.8*	104.2	103.5
Wholesale trade	266	268	261	269	269	262	121.2*	121.2	118.2
Retail trade	850*	862	848	872	869	855	121.5*	121.2	119.3
Finance, insurance & real estate	293	295	290	295	295	291	135.8	135.8	133.9
Service & miscellaneous	1,308*	1,329	1,271	1,318*	1,321	1,264	152.8*	153.2	146.5
Federal government	144*	143	141	144	142	141	112.2*	111.0	109.8
State & local government	561	561	556	550	549	544	94.4	94.3	93.4
Manufacturing									
No. of wage and salary jobs (thous.)	1,045	1,048	1,038	1,051	1,049	1,039	78.3	78.2	77.4
Durable goods	596	600	589	599*	600	589	74.0*	74.1	72.7
Nondurable goods	449	448	449	452	450	451	84.9	84.6	84.7
Ave. wkly. hrs. worked by prod. workers	40.8	40.9	40.2	40.9	41.2	40.5	103.4	104.2	102.5
Total wkly. person-hours worked (mils.)	29.1	29.3	28.3	29.3	29.6	28.6	76.4	77.1	74.4
Total wkly. payroll (mil. dols.)	295.4*	299.0	280.8	297.8*	301.4	283.0	132.6*	134.1	125.9
Average hourly earnings (dollars)	10.14	10.20	9.92	10.16	10.19	9.91	173.7*	174.2	169.4
Average weekly earnings (dollars)	413.71	417.18	398.78	414.54	420.54	401.80	179.2*	181.8	173.7
Steel production (thous. tons)	1,169*	1,149	1,035	n.a.	n.a.	n.a.	45.4*	43.6	39.3
Industrial electric power sales (mil. kwh)	3,832	3,705	3,453	3,813	3,780	3,479	103.2	102.4	94.2
Mining									
Anthracite coal (thous. net tons)	355	333	339	375	378	373	76.8	77.4	76.4
Bituminous coal (thous. net tons)	5,802	5,808	5,758	5,402	5,599	5,457	76.6	79.4	77.4
Construction contracts awarded (mil. dols.)									
Total	890.8	957.5	700.5*	769.4	858.6	620.9*	239.2	266.9	193.0*
Residential building	428.1	437.9	317.9*	379.6	381.3	265.2*	269.7	270.9	188.4*
Nonresidential building	217.5	258.7	212.3*	192.0	293.4	221.8*	177.0	270.4	204.5*
Nonbuilding (utilities and public works)	245.2	260.9	170.3*	197.8	183.9	133.9*	273.0	253.7	184.8*
Employment of Pennsylvania Residents									
Employed, no. of persons (thous.)	5,304	5,396	5,169	5,446	5,476	5,251	113.3	113.9	109.3
Unemployed									
No. of persons (thous.)	314	260	295	296	285	316	73.7	70.9	78.9
Rate (percentage of labor force)	5.6	4.6	5.4						
Rate, seasonally adjusted				5.1	4.8	5.6			
Civilian labor force, no. of persons (thous.)	5,617	5,656	5,464	5,741	5,760	5,567	110.3	110.6	106.9
Initial claims for unemployment benefits	77,033	73,720	92,138	90,624	78,521	96,228	63.3	54.8	67.2

Consumer Prices, all items	Urban Indexes (1982-84 = 100)			Percentage Change	
	1988		1987	*Month Ago*	*Year Ago*
	March	*April*	*April*		
U.S. city average	116.5	117.1	112.7	+0.5	+3.9
Philadelphia	119.6	120.0	115.5	+0.3	+3.9
Pittsburgh	n.a.	114.5	110.8	n.a.	+3.3

[1] Total includes workers on strike. * = figure revised - = data not available
SOURCES AND DEFINITIONS OF DATA ARE AVAILABLE ON REQUEST

Share of new service jobs by industry with 1987 job shares (percent)

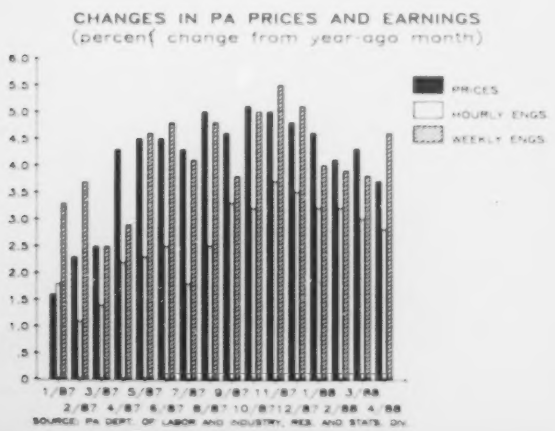
	1987 service job share	Share of new jobs generated between 1987 and 1988 (Jan.–Apr. average)
Hotels & other lodging	4.2	9.2
Business services	17.1	28.7
Amusement & recreation	3.1	0.7
Health services	32.7	25.7
Legal services	2.8	4.3
Education	11.3	9.3
Social services	6.5	3.8

Source: PA Dept. of Labor and Industry, Res. and Stats. Div.

resident employment rose by about 30,000 after seasonal adjustment in April according to Center for Regional Business Analysis estimates. The U.S. Bureau of Labor Statistics estimates the gain to be around 40,000. This represents the first such gain since January and is certainly welcome news. As a result, the State's jobless rate dipped to 4.8 percent, the first time it has been that low since the first few months of 1974. **However, the first bit of news on the state of the economy for the month of May shows a fair amount of deterioration in these widely-watched indicators.**

Inflationary fears have surfaced over the past few months at the national level in light of a string of good news on the economic front. Some argue that there is little room for further expansion without rekindling price pressures. Should these bottlenecks develop, some foresee the end of the current recovery which began in late 1982. These same concerns also account for the uptick in "Fed-watching" as analysts are scrambling to decipher how the nation's monetary policy makers react to inflationary fears.

Beyond its macroeconomic consequences, inflation also has the potential to have a significant impact at the microeconomic level through, for instance, its effect on real earnings. As shown in the accompanying chart, which updates and expands upon an issue eluded to in the April issue of the *PBS*, **price gains in Pennsylvania, in general, have outpaced earnings gains in the manufacturing sector throughout much of the first five months of 1988.** Furthermore, going back to the begining of 1987, price increases in the Commonwealth, as measured by a weighted average of the Pittsburgh and Philadelphia consumer price indexes, have fallen short of average hourly earnings in only one month, implying an erosion in real hourly earnings. The situation is somewhat better when weekly earnings are examined. In fact, over the 16 months stretching back to January 1987, the increase in weekly earnings has outpaced price advances in seven months. As a result of this trend, some may hypothesize that Pennsylvanians are working longer hours in an effort to maintain their buying power and standard of living. Any rise in inflation would certainly make it more difficult for Pennsylvania's factory workers to "hold their own" in this respect.



— William D. Anderson

Personal Income Report

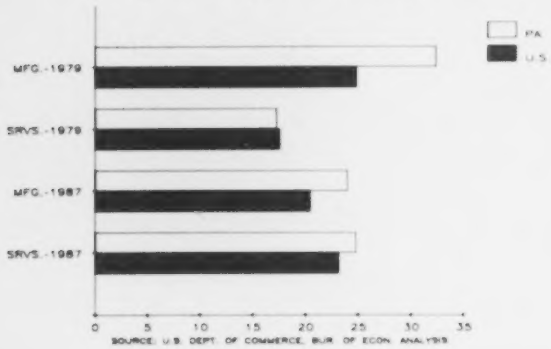
The overriding theme running through the past several issues of the *PBS* has been that the Commonwealth, despite several lingering problems, has performed more in line with the nation in terms of overall economic growth recently after trailing for an extended period of time. Information on 1987 personal income trends provides additional evidence to back up such a contention. For instance, the 5.7 percent increase in total personal income over 1986 levels, which left this measure of economic health at $179 billion, was nearly identical to the 5.8 percent gain registered in the U.S. as a whole. The last time that Pennsylvania turned in such a relatively strong performance was in 1975 when there was a similar 0.1 percentage point difference in growth rates. The most recent year in which personal income growth in Pennsylvania surpassed national averages was in 1974.

Furthermore, a slightly different measure of income, earnings by place of work, actually rose faster in Pennsylvania than in the U.S. in 1987, 6.6 versus 6.3 percent. Specifically, in seven of the ten broad nonfarm industry groupings, Pennsylvania earnings growth surpassed national readings. The only shortfalls occurred in the manufacturing, finance, and services categories.

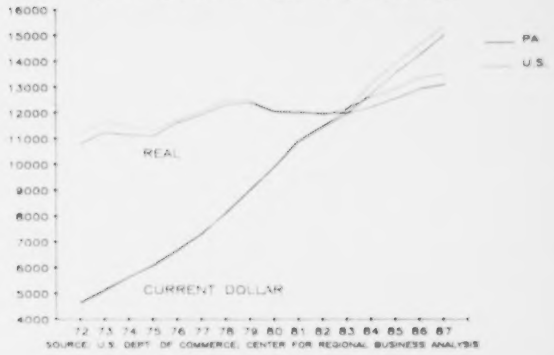
Much has been made lately of the growing importance of services in the Pennsylvania economy, and, for that matter, the U.S. economy. This past year represented somewhat of a milestone in that the total amount of earnings generated in the services industries in Pennsylvania surpassed manufacturing-based earnings for the first time. Still, Pennsylvania remains heavily oriented towards manufacturing, especially relative to the nation as a whole. As shown in the accompanying chart, even though manufacturing earnings as a share of total earnings has dipped from 32.4 percent in 1979 to 24 percent in 1987, its share is still about 3.5 percentage points greater than in the U.S. So, while the services industry has certainly gained in relative importance, it is probably misleading to talk of the "deindustrialization" of the economy.

In examining the situation on a per capita or per person basis, personal income in Pennsylvania expanded again in 1987. All told, PCPI totaled $14,997 in the Commonwealth last year for a 5.3 percent annual gain. This follows a 5.1 percent advance in 1986. For the U.S., PCPI totaled $15,340,

PA AND U.S. SHARE OF EARNINGS ACCOUNTED FOR BY MANUFACTURING AND SERVICES, 1979 AND 1980
(percent; by place of work)



PA AND U.S. REAL AND CURRENT DOLLAR PER CAPITA PERSONAL INCOME
(real income in 1982-1984 dollars)



a 4.8 percent gain from a year earlier. This comes on the heels of a 5.2 percent 1986 gain.

Clearly, personal income trends were quite positive in Pennsylvania during 1987 in both absolute and relative terms. However, as eluded to earlier, one should certainly not declare the Pennsylvania economy problem-free based upon some short-term improvement as an examination of longer-term trends highlights some stubborn problems. Paramount among these problems is the tendency of the U.S. as a whole to outperform the State. Despite the encouraging showing last year, the accompanying chart shows that a sizable gap in per capita personal income has arisen over the course of the 1980s between the U.S. and Pennsylvania after several years of nearly identical showings. This gap exists whether measured on a real (inflation-adjusted) or current dollar basis.

As of 1986, Pennsylvania PCPI amounted to 97 percent

1987 personal income by major source, Pennsylvania and the United States (millions of dollars)

	Pennsylvania		U.S.
	1987	Pct. chg. from 1986	Pct. chg. from 1986
Earnings by place of work	125,972	6.6	6.3
By type			
Wage and salary disbursements	100,882	6.4	6.0
Other income	10,516	4.9	4.5
Proprietors income	14,574	9.7	9.9
By industry			
Farm	1,090	3.3	5.4
Nonfarm	124,882	6.6	6.4
Private	108,572	6.5	6.3
Ag. serv., for., fish., and other	434	4.1	2.9
Mining	1,732	2.7	0.2
Construction	8,172	11.4	5.5
Manufacturing	30,259	2.7	3.0
Nondurable goods	11,522	3.3	4.6
Durable goods	18,737	2.4	2.1
Transportation and public utilities	8,644	5.4	5.2
Wholesale trade	7,533	5.5	4.9
Retail trade	12,151	5.9	5.8
Finance, insurance, and real estate	8,370	13.0	13.4
Services	31,278	8.6	8.7
Government	16,310	7.3	6.6
Federal, civilian	3,852	3.6	3.4
Federal, military	737	17.0	4.2
State and local	11,721	7.9	8.0
Total personal income	178,995	5.7	5.8
Nonfarm personal income	177,905	5.7	5.8
Net earnings[1]	117,719	6.6	6.3
Dividends, interest and rent	29,800	3.7	4.6
Transfer payments	31,477	4.0	4.8

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, April 1988.

[1]Total earnings by place of work less personal contributions for social insurance and plus an adjustment for residence.

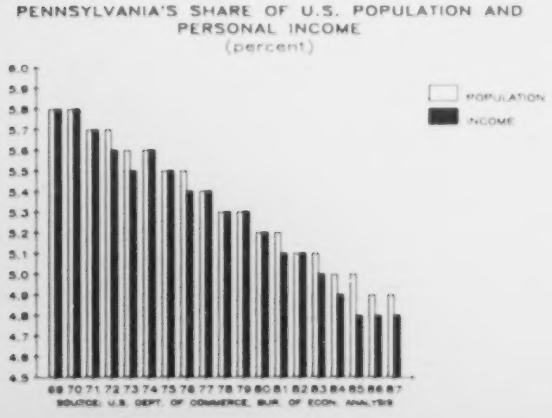
1986 total and per capita personal income, Pennsylvania metropolitan areas

	Total personal income (millions of dollars)		Per capita income (dollars)	
	1986	Pct. chg. from 1985	1986	Pct. of natl. ave 1986
Allentown-Bethlehem	9,812	4.8	14,939	102
Altoona	1,514	5.2	11,429	78
Beaver County	2,211	-2.1	11,443	78
Erie	3,497	4.1	12,524	86
Harrisburg-Lebanon-Carlisle	8,034	6.6	13,916	95
Johnstown	2,789	3.7	10,972	75
Lancaster	5,777	7.8	14,680	100
Philadelphia	77,983	6.6	16,160	110
Pittsburgh	30,998	4.4	14,602	100
Reading	5,036	5.1	15,689	107
Scranton-Wilkes-Barre	9,244	5.7	12,734	87
Sharon	1,443	2.4	11,680	80
State College	1,362	7.8	11,889	81
Williamsport	1,424	6.1	12,237	84
York	5,901	5.9	14,836	101

SOURCE: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, April 1988.

of the U.S. average. Following 1987's strong showing, that share did rise, but only to 98 percent. Throughout the late-1970s, per capita readings of personal income in Pennsylvania were equal to or slightly above national averages, so it does appear that some ground has been lost. Furthermore, while the Commonwealth's 1987 per capita personal income ranked 20th among all 50 states, the majority of our neighbors rank higher. For instance, each of the other four states making up the Mideast region, New Jersey (with a rank of 2), New York (4th), Maryland (6th), and Delaware (11th), rank higher than Pennsylvania. If the scope of analysis is expanded even further, to, say, the New England, Mideast, and Great Lakes regions, one finds that only five of the 16 states in these three areas rank lower than Pennsylvania.

Why has Pennsylvania lost ground relative to the nation? As shown in the accompanying chart, the State's share of the U.S.' population and personal income, the two "variables" which combine to make up per capita personal income (PCPI is equal to total personal income divided by population), has been on the decline for several years. However, in that these two moved pretty much hand-in-hand



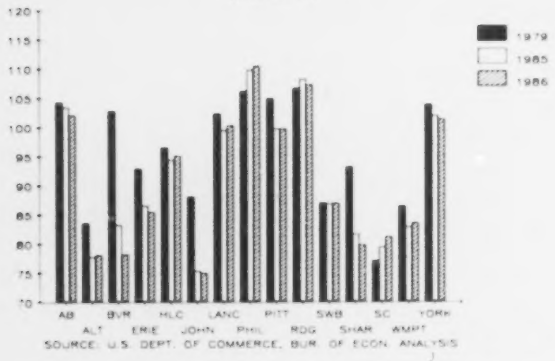
until the early 1980s, the State's per capita personal income stayed very close to national averages. About a half-decade ago, however, the share of total personal income accounted for by Pennsylvania began to drop even faster than the population-share. As a result, the Commonwealth's PCPI did not grow as fast as in the U.S.

The annual estimates of metroplitan area personal income have also been updated and revised through 1986 (they lag national estimates by one year). Trends across Pennsylvania show a good deal of variation as annual growth rates in total personal income ranged anywhere from 7.8 percent in State College and Lancaster to a 2.1 percent decline in Beaver County during 1986. While seven of the State's 15 regions realized a larger growth rate than the Commonwealth's 5.4 percent advance, only four managed to outperform the nation's 6.3 percent gain.

Recent metropolitan area personal income trends highlight the differing growth patterns across the western and eastern halves of Pennsylvania. The highest levels of per capita personal income are found in the eastern portion of the Commonwealth. Specifically, six of the top seven levels of PCPI are found in eastern Pennsylvania. From the outside, only Pittsburgh managed to crack this group. Not surprisingly, Philadelphia led the way with a PCPI of $16,160 in 1986, a full 10 percent above the national average. Reading was next with $15,689. The top three was rounded out by the Allentown-Bethlehem region with a per capita personal income level of just over $14,900. The bottom three consist of western Pennsylvania's Johnstown, Altoona, and Beaver County metro areas, all with readings which are less than 80 percent of the U.S. average.

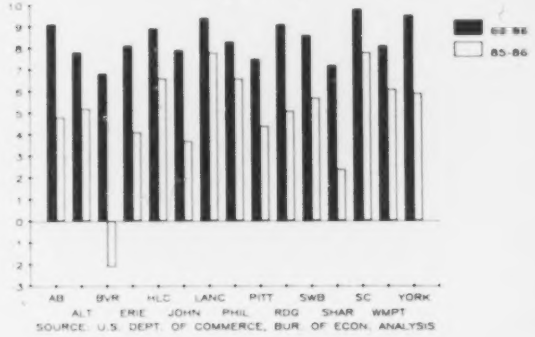
While 14 of the 15 metro areas realized personal income gains in 1986 on both a total and per capita basis, only cautious optimism is warranted as a result of an examination of longer-term trends. For instance, only Philadelphia, Reading, and State College accounted for a larger portion of U.S. per capita personal income readings in 1986 compared to 1979. In each of the other cases, while absolute

SHARE OF U.S. PER CAPITA PERSONAL INCOME BY PA METROPOLITAN AREA
(percent)



SOURCE: U.S. DEPT. OF COMMERCE, BUR. OF ECON. ANALYSIS

1985-1986 AND 1969-1986 AVERAGE ANNUAL GROWTH IN PERSONAL INCOME BY PA METROPOLITAN AREA
(percent)



SOURCE: U.S. DEPT. OF COMMERCE, BUR. OF ECON. ANALYSIS

growth has occured, it has simply not matched up well with national trends (see chart).

Similarly, none of Pennsylvania's metro regions managed to reach historical averages in terms of personal income growth during 1986. Specifically, if growth rates for that year are compared with 1969-1986 averages, none of the regions managed to perform up to par.

In sum, one has to be encouraged by the recently-released indicators of personal income. Some definite short-run improvement has taken place. However, when measured against national and historical patterns, it is also apparent that considerable room remains for improvement.

— William D. Anderson

THE U.S. ECONOMY — WILL HISTORY REPEAT ITSELF . . .?

Those involved in the publication of the Pennsylvania Business Survey *are constantly striving for consistency in reporting on economic conditions and trends as they relate to the Commonwealth. As a result, we often refer to several dominant or overriding themes which we use as a common denominator in our analyses. Several times in the past, we have highlighted the ties between the Pennsylvania and U.S. economies. In order to keep our readers updated on all factors having an impact on Statewide economic conditions, we feel that it is worthwhile to provide a thorough overview of U.S. economic trends on a periodic basis. This article represents our second effort at accomplishing this and follows a review designed for similar purposes contained in the June 1987 issue of the* Survey.

We are pleased that Jack Malehorn, Chief Economist with United Telephone Company of Pennsylvania, has again agreed to provide us with his thoughts concerning U.S. economic conditions. The views expressed by Jack are his own and do not necessarily reflect those of The Pennsylvania State University or United Telephone Company of Pennsylvania.

The revision in first quarter real GNP growth from a 2.3 to 3.9 percent annual rate underscores the fundamental strength in the economy. Following the shock in financial markets last fall, most observers were expecting a downturn by early 1988. Instead, ample evidence of the underlying resiliency in the economy is apparent, illustrated by continued employment growth and increased production.

Paradoxically, the bullish news on the economy has caused an alarmist reaction by skittish financial markets. Financial participants, armed with a clear recollection of the losses associated with holding fixed income securities experienced in the highly inflationary 1970s, have presumed that the economy cannot operate at its present level without bumping up against resource constraints, spurring cost-push pressures.

On the surface, concerns expressed by financial markets appear justified. An examination of the accompanying table illustrates the underlying potential for imminent price pressures when past business patterns are analyzed. Still, many structural changes have occurred over the last several years which may thwart the expected. The changing nature of labor markets, a growing awareness of global markets and the intensely competitive nature of these markets, and the effects of deregulation may ensure continued economic prosperity without the crippling effects of inflation.

The most plausible scenario calls for moderate economic growth throughout the year. While an overt degree of volatility in the financial markets may appear to jeopardize the expansion, market sensitivity may actually help to contain inflation and interest rate pressures and keep the current expansion on track, at least until next year.

LABOR MARKET CONCERNS

April's labor market report indicated that the national unemployment rate fell to 5.4 percent — a 14 year low — and approximately one-half the level realized in late 1982, at the beginning of the current business expansion. Since the start of the new year alone, over one million jobs have been added, leading to concerns about tight labor markets and subsequent wage inflation.

Theoretically, a question concerning the so-called natural

Historical business patterns

Business cycle peaks	Unemployment	Inflation
1973-74	4.8%	13%
1979	5.7%	14%
1988	5.4%	4-5%

rate of unemployment, a level at which unemployment is consistent with steady inflation, has surfaced. Generally, an estimate of the natural rate of unemployment, or full employment, ranges from 5½ to 6 percent. Current supposition suggests that the present unemployment rate constitutes the onset of escalating wage demands. However, this argument does not account for structural changes which have occurred in labor markets over the last several years.

One influential factor concerns the movement of the post-baby-boom generation into the work force. Those individuals from 16 to 24 years of age currently make up roughly 19 percent of the labor force, compared to a low of 15 percent in the mid 1950s and a high of 24 percent as recently as 1979. While the reduction in young workers has created a void in low-pay, low-skilled jobs, the converse would indicate that the current work force consists of more productive, experienced individuals, productivity being the key to minimizing cost pressures.

Another factor concerns the present situation surrounding unemployment insurance benefits and coverage. In 1980, roughly 44 percent of the unemployed qualified for benefits, as compared to 30 percent today. Certainly, the availability of unemployment benefits and extension of coverage have tended to increase workers' competitiveness and concern for job security.

From the employer's perspective, labor costs are an essential element in the overall expense of doing business. Over time, the real minimum wage has actually fallen, since the official minimum wage level was frozen at $3.35 in 1981. In addition, the average rise in labor costs in 1987 was 2.5 percent, which represented the lowest level in the past 40 years. To date, labor costs have been held to a 2.9 percent annual rate, well under the expected rate of inflation. Consequently, wage pressures may not be a pending threat.

Other factors influencing labor costs include: changes in bargaining procedures; a loss of union power (at present, roughly 18 percent of the labor force is unionized, compared to greater than 25 percent in 1980); deregulation; increased productivity in manufacturing; a change in the structural composition of the nation's output and the concurrent skill mix and level of the labor force; as well as a change in management philosophy regarding salary levels as opposed to other forms of personal job satisfaction. Considering these factors, the unemployment rate associated with full employment may be lower than esstimated, suggesting additional room for job expansion without confronting necessary wage inflation.

THE MARKETPLACE

In light of recent healthy job gains, it is not surprising to witness a resurgence in consumer expenditures. Following a relatively flat year for consumer purchases in 1987, coupled with the October market crash, consumer confidence has dramatically rebounded, leaving households with a renewed penchant to spend. However, a surge in personal consumption would be construed as disadvantageous, given the current emphasis on investment and export related activities, triggering concern over physical constraints, i.e. labor and production capacity, in the economy.

The most likely scenario regarding consumer intentions lies somewhere between the polar extremes of runaway spending and retrenchment. The realization of strong employment gains combined with advances in income should translate into real spending gains in the 2 to 4 percent range — a seemingly palatable level — without exerting considerable demand pressure on product markets. At the same time, a spending boom should be averted due to the magnitude of consumer debt tied to variable rate instruments. Upward interest rate pressures as well as the desire to redress balance sheets and boost savings should limit consumer demand-oriented inflationary tendencies.

As anticipated, the construction industry would do well to hold its own this year. All facets of building, i.e. residential, nonresidential and nonbuilding, face both price and financing pressures. The primary focus on both housing and nonresidential construction should be at the local level where disparities exist. Some local housing markets continue to boom and are constrained only by financing and administrative procedures.

As previously anticipated, the real emphasis in the economy is derived from the production-oriented sectors. Investment activity, centered primarily on plant and equipment expenditures, coupled with export-fueled activity, have managed to keep the expansion on track. Since early in 1987, capital goods investment has propelled the volume of exports at better than 22 percent. If planned investment spending matches actual expenditures by year-end, 1988 will be one of the best years for capital spending in the expansion. Still, attempts by producers to regain marketshare will add to competitive pressures and help keep prices in check.

Besides a possible labor constraint, analysts have focused on limitations in production capacity as a source of inflationary pressure. Similar to the labor market dilemma, it is not clear whether production industries have reached maximum capacity utilization. Surely, in the primary processing industries, such as textiles, chemicals and primary metals, full resource utilization is within reach. However, in other industries, such as electrical and non-electrical machinery and autos, ample room for increased production exists.

To date, the majority of investment spending has been for capital equipment, primarily focused on technological improvements and innovative changes for modernization purposes. This, in turn, has a profound impact on manufacturing productivity. On the other hand, outlays for plant expansion have been slow, due in part to the likelihood of continued viable markets into the foreseeable future warranting the risk of investment.

Some lengthening in delivery schedules and production bottlenecks have been reported, but it is far from a broad-based backlog. Consequently, expected cost-push pressures from stretched resource markets and operating capacity are still a bit premature.

FINANCIAL MARKETS

Within a very short period of time, attention in financial markets has shifted from concern over a slowing economy to worries about inflation. One explanation suggests the presence of a bifurcated economy, presenting a clear distinction between the real and financial sectors. At present, the financial sector appears to be more attuned to psychological factors, as evidenced by the recent gain in interest rates. The current interest rate structure includes both an inflation premium as well as a risk premium relative to the volatility in credit markets.

In order to manage the economy, the Fed holds the pivotal position since fiscal response, i.e. taxes and/or government spending, is limited by the massiveness of the Federal budget deficit and this year's political overtones.

Current Fed posturing includes tightening money, as witnessed by the rise in the Federal funds rate. A Federal funds rate above 7 percent is at least symbolic of the Fed's resolve to contain monetary growth and subsequent price pressures.

Still, the Fed holds an unenviable position. While attempting to remain apolitical, it is simultaneously trying to control liquidity within the economy, provide for a stable dollar, keep interest rates in check, and slow domestic demand without jeopardizing the expansion. To say the least, the Fed has established itself as the watchdog against a potential wage-price spiral. In recent testimony to Congress, Federal Reserve Chairman Alan Greenspan stated "...at current levels of resource utilization and with rising prices of imports likely from recent dollar declines, vigilance against signs of reemergence of greater inflationary pressures will continue to be needed."

WILL HISTORY REPEAT ITSELF...?

The current market consensus anticipates worsening inflationary pressures and the eventual demise of the economy by 1989. However, evidence suggests that a historical perspective may be misleading. In essence, structural changes may allow the business expansion to continue relatively unscathed. Financial markets have, after all, shown a tendency to overreact in the past.

Favorable economic prospects for this year are supported by a resurgence in consumer confidence, healthy investment spending, and a gradual improvement in the United States trade position. Whether inflation will rear its ugly head and derail the economy is possible but not certain.

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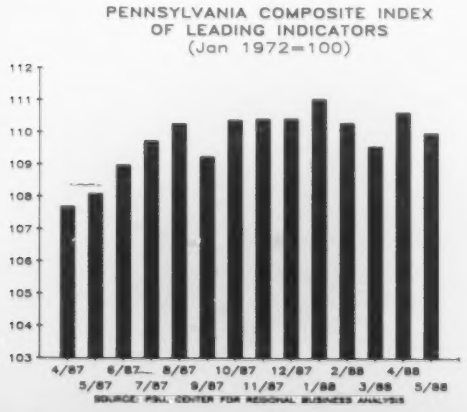
MIXED SIGNALS IN MAY . . . but overall trends remain positive

Several times in the past, it has been pointed out in the *Survey* that **it is not unusual for different indicators of the Commonwealth's economic health to be pointing in opposite directions, making it relatively easy to draw a wide variety of conclusions concerning the true course of the economy. May appears to have been such a month as several widely-watched indicators pointed in different directions.** There was a considerable amount of deterioration in the employment and unemployment statistics. Additionally, the number of initial claims for jobless benefits rose for the first time since January. On the other hand, the job situation in the State's nonagricultural establishments looked fairly encouraging for the month as factory job totals held steady alongside continued strength on the nonmanufacturing side. Furthermore, overall construction activity appears to have, at the least, held its own.

The index of leading indicators for the Pennsylvania economy, as tabulated by the Center for Regional Business Analysis, was especially sensitive to the negatives in the overall report as reflected in its decline of 0.5 percent from April readings. While the four consecutive monthly gains in the index in mid-1987 may have correctly forecast a fair uptick in overall economic activity which began in the final months of the year, **it does not appear likely that the recent behavior in the index can be interpreted as pointing to a retrenchment in the economy.** At least a few more months of downward pressure on the index is necessary before a warning bell is sounded. Such a trend is unlikely, especially in light of the continued strength in the nation's economy.

The monthly drop in the number of residents counted as employed, estimated at slightly more than 100,000, left this measure of economic health at its lowest reading so far this year, 5.38 million on a seasonally adjusted basis. There has not been such a considerable decline, at least on a month-to-month basis, over the course of the past several years. **This showing, on top of a relatively large drop in the labor force and a rise in joblessness, would appear to suggest rough sailing for the economy. However, it must be kept in mind that these numbers represent only an estimate based on a fairly small sample of Pennsylvania's population.** In that they do not offer a "perfect" reading of the employment situation, it is best not to put too much weight behind the results for any single month. Indeed, this past May's estimates may not have adequately picked up the inflow into the labor force on the part of the student population resulting from the end of the academic year at many of Pennsylvania's colleges and universities.

Perhaps a truer reading of the overall health of the economy is found in examining longer term trends. For instance, **on a year-to-date basis, employment so far in 1988 has expanded at a 3.7 percent clip, a pace that, if maintained throughout the rest of the year, would represent the strongest showing in at least a decade.** However, it is doubtful that this will happen as the final months of this year will be compared to a rather impressive showing in the same period in 1987, making the continuation of 1988's encouraging first-half showing unlikely. In addition, some may argue that a lack of available labor, as reflected in the long-run decline in joblessness, will naturally limit employment gains in the foreseeable future. At the same time, others argue that



Pennsylvania Composite Indexes

	Index		Percentage Change from Preceding Month	
	Leading	*Coincident*	*Leading*	*Coincident*
September 1987	109.3	85.1	−0.9	−0.2
October	110.4	85.9	1.0	0.9
November	110.4	86.1	0.0	0.2
December	110.4	86.6	0.0	0.6
January 1988	111.1	86.9	0.6	0.3
February	110.3	86.5	−0.7	−0.5
March	109.6	86.0	−0.6	−0.6
April	110.6	86.0	0.9	0.0
May	110.0	85.2	−0.5	−0.9

there really is not an absolute shortage of available labor, but a shortage of labor with appropriate skills. Many of these same individuals argue that there is a large, as yet untapped, supply of labor in, say, the State's elderly, those receiving public assistance who cannot afford daycare for dependents during work hours, and those classified as "discouraged" workers.

Job trends remain positive in most industries, especially on the nonmanufacturing side, in Pennsylvania. **While there may be some relatively short periods of slight upward or downward pressure on factory job totals, they will, in all likelihood, hold fairly steady well into the foreseeable future.** Indeed, at a seasonally adjusted 1.05 million, job levels were unchanged in May after declining for three consecutive months.

At the same time, **the trend in most nonmanufacturing industries, especially in the services category, remains positive and shows little sign of weakening soon.** In light of the divergent job trends evident in our factories and service industries, the relative price of labor in these two sectors should converge over time. As shown in the accompanying chart, this has, in fact, happened. While average annual wages in service industries totaled just slightly above 60 percent of comparable figures from the manufacturing sector in

Economic Activity in Pennsylvania	UNADJUSTED DATA			SEASONALLY ADJUSTED DATA			SEASONALLY ADJUSTED INDEXES (1977 = 100)		
	1988		1987	1988		1987	1988		1987
	April	*May*	*May*	*April*	*May*	*May*	*April*	*May*	*May*
Pennsylvania Industries									
All nonagricultural industries									
No. of wage and salary jobs (thous.)[1]	5,009	5,040	4,921	5,005	5,012	4,893	109.6	109.8	107.2
Nonmanufacturing									
No. of wage and salary jobs (thous.)	3,960*	3,990	3,879	3,957	3,966	3,855	122.8*	123.0	119.6
Mining	30	30	31	30	29	31	61.7	61.0	63.7
Contract construction	224*	236	220	232	234	218	126.3*	127.2	118.6
Transportation	142*	142	144	140	140	142	87.1*	86.8	88.1
Public Utilities	104	105	104	105	105	104	104.3	104.7	103.7
Wholesale trade	268	269	262	268	269	262	121.0	121.4	118.3
Retail trade	865*	874	856	873	875	857	121.7	122.0	119.5
Finance, insurance & real estate	295	296	292	295	295	292	135.8	135.8	134.1
Service & miscellaneous	1,329	1,335	1,274	1,322*	1,327	1,265	153.3	153.8	146.7
Federal government	143	144	141	142	143	141	111.1	111.5	109.8
State & local government	561	560	554	550	549	543	94.3	94.3	93.2
Manufacturing									
No. of wage and salary jobs (thous.)	1,046*	1,049	1,041	1,047*	1,047	1,039	78.1	78.0	77.4
Durable goods	598*	600	591	598*	597	588	73.8	73.8	72.6
Nondurable goods	449*	448	450	451*	450	451	84.7	84.5	84.7
Ave. wkly. hrs. worked by prod. workers	40.9	40.8	40.8	41.2	41.0	41.0	104.2	103.7	103.7
Total wkly. person-hours worked (mils.)	29.2*	29.3	28.8	29.5*	29.3	28.8	76.8	76.5	75.1
Total wkly. payroll (mil. dols.)	298.0*	298.9	286.0	300.4*	299.2	286.3	133.7	133.2	127.4
Average hourly earnings (dollars)	10.20	10.20	9.93	10.19	10.21	9.94	174.2	174.5	169.9
Average weekly earnings (dollars)	417.18	416.16	405.14	420.54	417.83	406.82	181.8	180.6	175.9
Steel production (thous. tons)	1,262*	1,210	1,079	n.a.	n.a.	n.a.	47.9*	47.9	42.6
Industrial electric power sales (mil. kwh)	3,705	3,693	3,482	3,780	3,723	3,549	102.4	100.8	96.1
Mining									
Anthracite coal (thous. net tons)	333	372	333	378	389	350	77.4	79.7	71.7
Bituminous coal (thous. net tons)	5,808	6,712	5,992	5,599	6,132	5,663	79.4	86.9	80.3
Construction contracts awarded (mil. dols.)									
Total	957.5	959.9	706.0*	858.6	938.8	686.3*	266.9	291.8	213.3*
Residential building	437.9	411.4	290.5*	381.3	314.4	228.5*	270.9	223.4	162.4*
Nonresidential building	258.7	328.9	199.0*	293.4	382.9	240.0*	270.4	353.0	221.2*
Nonbuilding (utilities and public works)	260.9	219.6	216.4*	183.9	241.5	217.8*	253.7	333.2	300.6*
Employment of Pennsylvania Residents									
Employed, no. of persons (thous.)	5,396	5,355	5,294	5,476	5,375	5,314	113.9	111.8	110.6
Unemployed									
No. of persons (thous.)	260	279	301	285	292	314	70.9	72.9	78.3
Rate (percentage of labor force)	4.6	5.0	5.4						
Rate, seasonally adjusted				4.8	5.1	5.5			
Civilian labor force, no. of persons (thous.)	5,656	5,635	5,595	5,760	5,667	5,628	110.6	108.8	108.1
Initial claims for unemployment benefits	73,720	69,608	71,631	78,521	83,060	91,510	54.8	58.0	63.9

Consumer Prices, all items	Urban Indexes (1982-84 = 100)			Percentage Change	
	1988		1987	*Month Ago*	*Year Ago*
	April	*May*	*April*		
U.S. city average	117.1	117.5	113.1	+0.3	+3.9
Philadelphia	120.0	120.9	116.4	+0.8	+3.9
Pittsburgh	114.5	n.a.	110.8	n.a.	+3.3

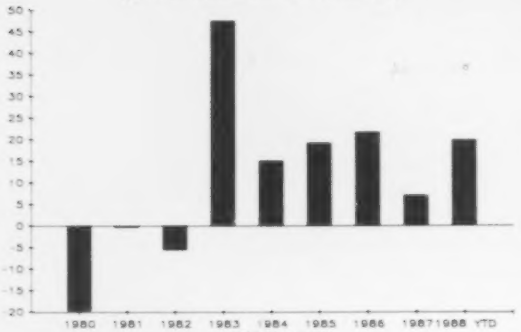
[1] Total includes workers on strike. * = figure revised — = data not available

SOURCES AND DEFINITIONS OF DATA ARE AVAILABLE ON REQUEST.

AVERAGE ANNUAL WAGES IN SERVICE INDUSTRIES AS A PERCENT OF MANUFACTURING
(for workers covered under Pennsylvania unemployment compensation laws)

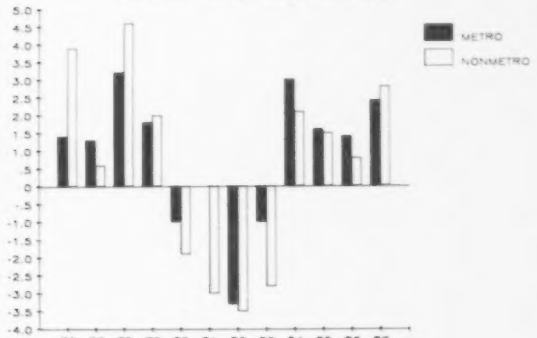
SOURCE: PA DEPT. OF LABOR AND INDUSTRY, OFFICE OF EMPLOYMENT SECURITY

GROWTH IN THE VALUE OF PA RESIDENTIAL CONSTRUCTION CONTRACT AWARDS
(annual percentage change)



SOURCE: F.W. DODGE

PA METRO AND NONMETRO AREA JOB GROWTH
(annual percentage change)



SOURCE: PA DEPT. OF LABOR AND INDUSTRY, RES. AND STATS. DIV.

the early 1960s, the most recent figures available suggest that they currently come to slightly more than 70 percent of the average manufacturing wage. On the negative side, this does give legitimacy to the worries of some concerning the tradeoff between the high-paying factory jobs and the relatively low-paying service jobs.

There are some easily identifiable trends in examining recent job growth patterns across urban/rural boundaries. In the late 1970s, nonmetro areas, for the most part, outperformed metro areas with respect to nonfarm job gains (see chart). Beginning in 1980, that trend reversed itself, and the metro areas outperformed their nonmetro counterparts on a continuous basis through 1986. Last year resulted in a slightly larger growth rate for the nonmetro areas, but more evidence is necessary to determine if the recent dominance on the part of metro areas has waned. As of 1987, Pennsylvania metro areas accounted for about 88 percent of all nonagricultural jobs. Over the course of the recovery, dating back to 1982/1983, they have accounted for 91 percent of all new jobs.

On the construction front, most evidence suggests that, while conditions are not booming, activity is, at the least, holding its own in Pennsylvania. A solid showing on the nonresidential side in May, as reflected in solid growth in the value of construction contract authorizations, led the way. **While the value of nonresidential authorizations is running at a pace only slightly ahead of a year ago so far in 1988, continued strength in manufacturing activity may translate into increased building activity in the future as it relates to factories and other facilities to meet rising demand.** Activity on the residential side continues to surprise many analysts. As shown in the accompanying chart, a solid showing has been turned in with respect to the year-to-date gain in residential contract awards despite some softening in May. Future trends are very much dependent on the direction in mortgage rates. Any forecast of future trends in borrowing costs, not only for housing but in many other markets as well, is proving to be a risky business as underlying determinants have been quite volatile recently.

— William D. Anderson

Retail Sales Report

Pennsylvania's retailers turned in another solid showing during the first three months of this year, continuing a string of several consecutive impressive performances. All told, retail sales in the Commonwealth totaled $17.5 billion in the first quarter for a gain of 13.1 percent from the same period in 1987. This comes on the heels of an 8.8 percent annual gain during last year's final quarter. Some of the January-March strength may be attributable to the fact that Easter fell in early April this year which certainly resulted in increased buying activity in the first quarter. Durable goods led the way in the most recent period as sales shot up by a surprisingly strong 28 percent, more than double 1987:IVQ's gain. Sales of nondurable goods rose a more modest 6 percent.

Again, the Commonwealth appears to have outperformed the nation as a whole. For the first quarter, U.S. retail sales grew 9.1 percent. As shown in the accompanying chart, Pennsylvania has steadily narrowed the gap with the nation

Pennsylvania retail sales (millions of dollars)

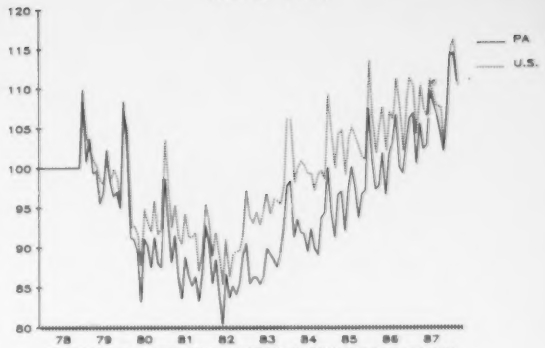
	Retail sales	Pct. change from yr. ago	Durable goods	Pct. change from yr. ago	Nondur. goods	Pct. change from yr. ago
1988:IQ	17,463	13.1	6,413	28.0	11,050	6.0
1987:IVQ	20,283	8.8	6,818	12.5	13,465	7.1

March data is preliminary.
Source: U.S. Dept. of Commerce, Bureau of the Census

with respect to real, or inflation-adjusted, retail sales, which provide a more accurate picture of the volume of sales activity, over the past few years. While the U.S. clearly outperformed the State early in the recovery, Pennsylvania began making up lost ground around 1986. Relative to respective historical trends, retail sales activity in Pennsylvania and the U.S. has been essentially identical over the past half-year which represents a significant improvement for the Commonwealth.

A dominant theme in recent issues of the *Survey* has been that Pennsylvania has an excellent chance to perform at least on par with the nation in 1988. Recent behavior in retail sales does nothing to change that hypothesis.

PA AND U.S. REAL RETAIL SALES
(1978=100)



SOURCE: U.S. DEPT. OF COMMERCE, BUREAU OF THE CENSUS

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